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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PILLSBURY WINTHROP SHAW PITTMAN LLP				
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MCLEAN, VA 22102				
EXAMINER				
BURD, KEVIN MICHAEL				
ART UNIT		PAPER NUMBER		
2611				
NOTIFICATION DATE		DELIVERY MODE		
10/21/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket_ip@pillsburylaw.com

Office Action Summary**Application No.**

09/967,136

Applicant(s)

MCCONNELL, RICHARD JOSEPH

Examiner

Kevin M. Burd

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-6, 8 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. This office action, in response to the amendment filed 8/18/2009, is a final office action.

Response to Arguments

2. The previous objection to the drawings is maintained. Though applicant has amended the claims, it is unclear where the features of the claims are shown in the drawings. The claims recite a number of steps including determining, removing, storing and using steps. The drawing discloses a number of timing diagrams. It is unclear where the recited steps of the method are shown in the drawings.
3. A new drawing objection is stated below.
4. A new objection to the claims is stated below.
5. New rejections of the claims in view of the previously cited prior art is stated below.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method steps recited in the claims must be shown or the features canceled from the claims. The timing diagrams of the figures do not show the recited method steps of the claims. No new matter should be entered.

7. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

8. Claims 1, 3-6, 8 and 17-20 are objected to because of the following informalities: The pending claims recite a process. It is unclear where the process recited being tied to another statutory class such as a particular apparatus where the use of the machine involves more than insignificant extra-solution activity or where the process discloses transforming the underlying subject matter to a different state or thing. Appropriate clarification or correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-6, 8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo et al (US 6,370,208) in view of Lundby et al (US 6,285,655) further in view of Underbrink (US 6,650,879).

Regarding claims 1, 3-5 and 18-20, Kuo discloses a correlator for CDMA applications. An incoming spread spectrum signal is received. In spread spectrum receivers, to despread the spread signal, the received signal is correlated with the appropriate spreading code (PN code) to recover the originally transmitted data. Kuo discloses determining for the spread spectrum signals, codes that are repeated in the correlation process (column 4, lines 21-26). These codes are the partial accumulations.

The codes are the same as those codes used to spread the transmitted signal.

Therefore, the spread signal is used to determine these codes. A portion of the codes are removed in this process. Column 4, lines 30-34 states, for example, the first and third positions have the pattern 1, 1, -1, 1. Adding the corresponding portions of the received signal together before multiplying reduces the number of multiplications. The non-redundant portions and the added redundant portions are stored then used to correlate the received signal to despread the received data signals in the receiver.

Claim 1 of the reference also provides a description of the process of despreading the received signals with a reduced number of calculations. Though Kuo discloses correlating the I and Q signals, Kuo does not explicitly show the I and Q signals are accumulated separately. Lundby discloses the CDMA receiver shown in figure 4. The receiver separates the received signal into I and Q components. The I and Q signals are separately correlated using a short PNI sequence and a short PNQ sequence (column 7, lines 51-57). The despread I and Q signals are separately input to accumulators 324a and 324b, as shown in figure 4, to accumulate the data over the 64-chip interval (column 7, lines 58-66). Using the prior art components of a CDMA receiver will allow for proper reception and recovery of the transmitted signals in the communication system. In addition, when a received signal is separated into its I and Q components, separate I and Q correlation takes place to despread the signal. The despread components are then combined. This is what is done in CDMA receivers. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the

invention to combine the typical components of a CDMA receiver as shown by Lundby into the CDMA receiver of Kuo.

The combination of Kuo and Lundby does not disclose the receiver is a GPS receiver. Underbrink discloses the personal communication device with GPS receiver shown in figure 3. The GPS receiver comprises a GPS receiver as well as a CDMA transceiver. The GPS receiver of Underbrink allows numerous types of signals to be received. The provisions share a common clock source (column 2, lines 19-30). This minimizes the physical size of the on-board battery (column 1, lines 14-28) as well as the inherent advantageous of GPS. For these reasons, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Underbrink into the method of Kuo and Lundby.

Regarding claim 6, Kuo discloses the redundant calculations are determined and removed from the calculations. The non-redundant calculations will be computed using the correlation process.

Regarding claim 8, Kuo discloses the use of I/Q spreading in the RAKE receiver (column 2, lines 34-43).

Regarding claim 17, Kuo discloses the received signal will comprise a number of code bits and corresponding data bits. Column 3, line 63 to column 4, line 4 discloses the data comprises numerous 4 bit code words. The spread data will comprise at least that number of data bits.

Conclusion

Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Burd whose telephone number is (571) 272-3008. The examiner can normally be reached on Monday - Friday 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Burd/
Primary Examiner, Art Unit 2611
10/15/2009